REMARKS

Upon entry of this Amendment, claims 1-10 and 15-27 will be pending in the present application. Claims 1, 6, 15, 21 and 22 are independent claims. Claims 1, 6, 15, 21 and 22 are amended by this Reply.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-3, 6-8, 15-16, 21-22 and 25 stand rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,111,623A to Sato, in view of U.S. Patent No. 6,221,543B1 to Guehler et al. (Guehler) for the reasons set forth in paragraph 1 of the Office Action. This rejection is respectfully traversed.

Sato discloses a color filter layer 11, contacting source electrodes 7. However, the color filter layer 11 of Sato fails to contact drain electrode 8 (see Figs. 1-3 of Sato). In other words, the color filter 11 of Sato fails to contact both the source and drain electrodes as required by Applicant's claims.

Therefore, Sato fails to disclose or suggest a color filter layer, contacting the both the source and drain electrodes, as recited in independent claim 1 (as amended) and similarly stated in independent claim 6, 15, 21 and 22 (as amended). Guehler cannot fill this vacancy.

Claims 2, 3, 7, 8, 16 and 25 depend on claims 1, 6, 15, 21 and 22. Since neither Sato, nor Guehler, discloses or suggests the above-recited features of independent claims 1, 6, 15, 21 and 22, Sato, in view of Guehler, cannot

render claims 1-3, 6-8, 15-16, 21-22 and 25 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Claims 4 and 9 stand rejected under 35 U.S.C. 103(a) over Midorikawa in view of Guehler, and further in view of U.S. Patent No. 6,162,510 to Kashiwazaki et al. (Kashiwazaki) for the reasons set forth in paragraph 2 of the Office Action. This rejection is respectfully traversed.

Midorikawa, (as well as Sato, argued above with respect to independent claims 1 and 6) fails to disclose or suggest a color filter layer, contacting the both the source and drain electrodes. Neither Guehler, nor Kashiwazaki can fill this vacancy. Claims 4 and 9 depend from claims 1 and 6. Since neither Midorikawa, nor Guehler, nor Kashiwazaki discloses or suggests the features of independent claims 1 and 6, Midorikawa, in view of Guehler, and further in view of Kashiwazaki, cannot render claims 4 and 9 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Claims 5 and 10 stand rejected under 35 U.S.C. 103(a) over Midorikawa in view of Guehler, as applied to claims 1 and 6 above, and further in view of U.S. Patent No. 6,297,862B1 to Murade for the reasons set forth in paragraph 3 of the Office Action. This rejection is respectfully traversed.

Neither Midorikawa, nor Guehler (as well as Sato, argued above with respect to claims 1 and 6) discloses or suggests the features of independent claims 1 and 6. Murade cannot fill this vacancy. Claims 5 and 10 depend (directly or indirectly) from claims 1 and 6. Since neither Midorikawa, nor Guehler, nor Murade discloses or suggests the features of independent claims 1 and 6, Midorikawa, in view of Guehler, and further in view of Murade, cannot render claims 5 and 10 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection is respectfully requested.

Claims 17 and 23 stand rejected under 35 U.S.C. 103(a) over Midorikawa, in view of Guehler as applied to claims 15 and 22, in further in view of Kashiwazaki for the reasons set forth in paragraph 4 of the Office Action. This rejection is respectfully traversed.

Midorikawa (as well as Sato, argued above with respect to independent claims 15 and 22) fails to disclose or suggest a color filter layer, contacting the both the source and drain electrodes. Neither Guehler, nor Kashiwazaki can fill this vacancy.

Claims 17 and 23 depend (directly or indirectly) on claims 15 and 22 respectively. Since neither Midorikawa, nor Guehler, nor Kashiwazaki discloses or suggests the features of independent claims 15 and 22, Midorikawa, in view of Guehler, and further in view of Kashiwazaki cannot render claims 17 and 23

obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Claims 18, 19, 20 and 24 stand rejected under 35 U.S.C. 103(a) over Midorikawa, in view of Guehler as applied to claims 15 and 22, and further in view of Murade for the reasons set forth in paragraph 5 of the Office Action. This rejection is respectfully traversed.

Midorikawa (as well as Sato argued above with respect to claims 15 and 22,) does not disclose or suggest a color filter layer, contacting the both the source and drain electrodes. Neither Guehler, nor Mirade can fill this vacancy.

Claims 18, 19, 20 and 24 depend (directly or indirectly) on claims 15 and 22. Since neither Midorikawa, nor Guehler, nor Murade discloses or suggests the features of independent claims 15 and 22, Midorikawa, in view of Guehler, and further in view of Murade cannot render claims 18, 19, 20 and 24 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Claims 26 and 27 stand rejected under 35 U.S.C. 103(a) over Midorikawa, in view of Guehler as applied to claims 15 and 22, and further in view of U.S. Patent No. 6,166,786A to Ohkubo et al. (Ohkubo) for the reasons set forth in paragraph 6 of the Office Action. This rejection is respectfully traversed.

Midorikawa (as well as Sato, argued above with respect to claims 15 and 22) does not disclose or suggest a color filter layer, contacting the both the source and drain electrodes. Neither Guehler, nor Ohkubo can fill this vacancy.

Claims 26 and 27 depend (directly or indirectly) on claim 22. Since neither Midorikawa, nor Guehler, nor Ohkubo discloses or suggests the features of independent claim 22, Midorikawa, in view of Guehler, and further in view of Ohkubo, cannot render claims 26 and 27 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

CONCLUSION

Applicant points out that all of the Examiner's comments have been addressed and that all of the Examiner's objections and rejections have been overcome, thereby placing all claims pending in the present Application in condition for allowance. Allowance of the claims is respectfully solicited.

In the event that any outstanding matters remain in this application, Applicant requests that the Examiner contact Percy L. Square, Reg. No. 51,084 at (703) 205-8034 to discuss such matters.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

The claims have been amended as follows:

1. (Twice Amended) A liquid crystal display (LCD) device comprising:

a substrate;

a gate electrode over the substrate;

a semiconductor layer aligned with the gate electrode;

an insulation layer between the gate electrode and the semiconductor layer;

a source electrode and a drain electrode electrically connected with the semiconductor layer;

a color filter layer, contacting the both the source and drain electrodes, wherein said contacting is only at a portion where said color filter layer is overlapping only edge portions of the source and the drain electrodes;

a planarization layer over the color filter layer and the source and the drain electrodes, the planarization layer having an opening exposing the drain electrode thereunder; and

a pixel electrode on the planarization layer and electrically connected with the drain electrode via the opening in the planarization layer.

6. (Twice Amended) A method of forming liquid crystal display (LCD) device, the method comprising:

forming a substrate;

forming a gate electrode over the substrate;

forming an insulation layer on the gate electrode and the substrate;

forming a semiconductor layer, aligned relative to the gate electrode, on the insulating layer;

forming a source electrode and a drain electrode electrically connected with the semiconductor layer;

forming a color filter layer, contacting the both the source and drain electrodes, wherein said contacting is only at a portion where said color filter layer is overlapping only edge portions of the source and the drain electrodes;

forming a planarization layer over the color filter layer and the source and drain electrodes, the planarization layer having an opening exposing the drain electrode thereunder; and

forming a pixel electrode on the planarization layer and electrically connected with the drain electrode via the opening in the planarization layer.

15. (Twice Amended) A liquid crystal display device comprising:

a thin film transistor (TFT) formed on a substrate, including a gate electrode, a source electrode, and a drain electrode;

a color filter layer, contacting both the source and drain electrodes, wherein said contacting is only at a portion where said color filter layer is overlapping only edge portions of the source and drain electrodes;

a planarization layer formed on the TFT and on the color filter; and

a pixel electrode formed on the planarization layer and electrically contacting the drain electrode.

21. (Twice Amended) A method of manufacturing a liquid crystal display device, the method comprising:

providing a substrate;

forming a gate electrode on the substrate;

depositing sequentially a gate insulating layer, a pure semiconductor layer and a doped semiconductor layer over the substrate;

etching the pure semiconductor layer and the doped semiconductor layer to form an active layer;

forming a source electrode and a drain electrode on the active layer;

forming a color filter, the color filter, contacting the both the source and drain electrodes, said contacting being only at a portion where said color filter layer is overlapping only an edge portion of the source and drain electrodes;

etching a portion of the doped semiconductor layer between the source and drain electrodes to form a channel region of a resulting intermediate structure;

forming a planarization layer over the intermediate structure, the planarization layer including a drain contact hole to expose a portion of the drain electrode; and

forming a pixel electrode on the planarization layer, the pixel electrode electrically contacting the drain electrode via the drain contact hole.

22. (Twice Amended) A method of manufacturing a liquid crystal display device, the method comprising:

providing a substrate, the substrate including first and second regions;

forming a thin film transistor (TFT) on the first region of the substrate, the TFT having a gate electrode, an active layer, and source and drain electrodes;

forming a color filter on a second region of the substrate, the color filter, contacting both the source and drain electrodes, wherein said contacting is only at a portion where said color filter layer is overlapping only edge portions of the source and drain electrodes;

forming a planarization layer on the TFT and the color filter, the planarization layer including a drain contact hole to expose a portion of the drain electrode; and

forming a pixel electrode on the planarization layer, the pixel electrode electrically contacting the drain electrode via the drain contact hole.